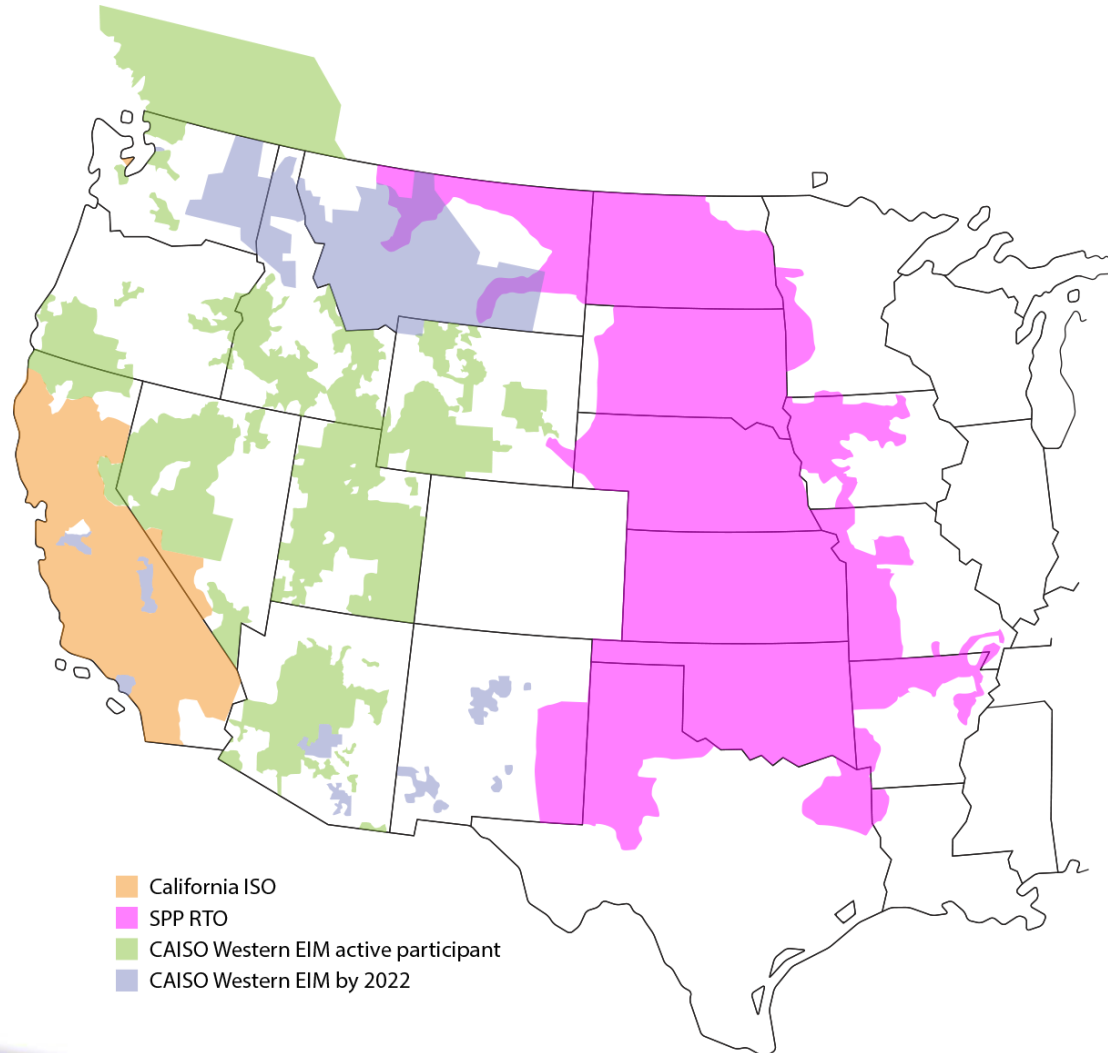


# Energy Imbalance Markets in the West

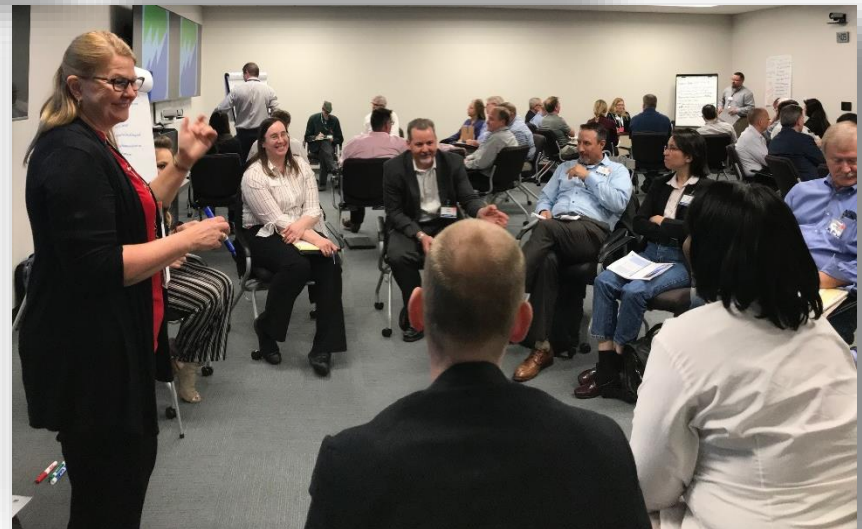
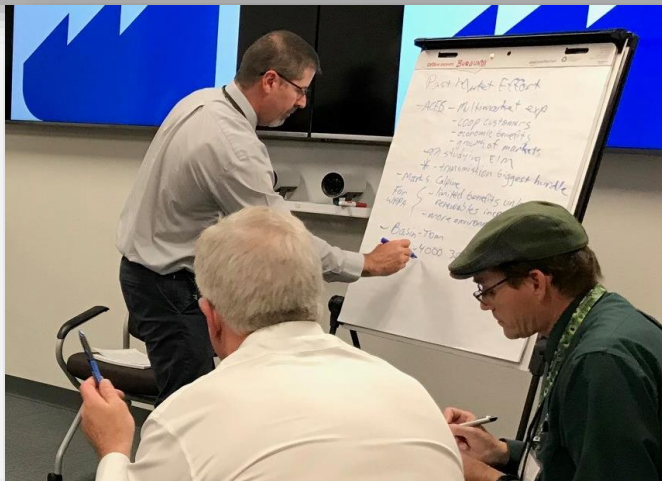
June 26 | LAP/WACM Webinar

Dave Neumayer  
VP of Power Marketing

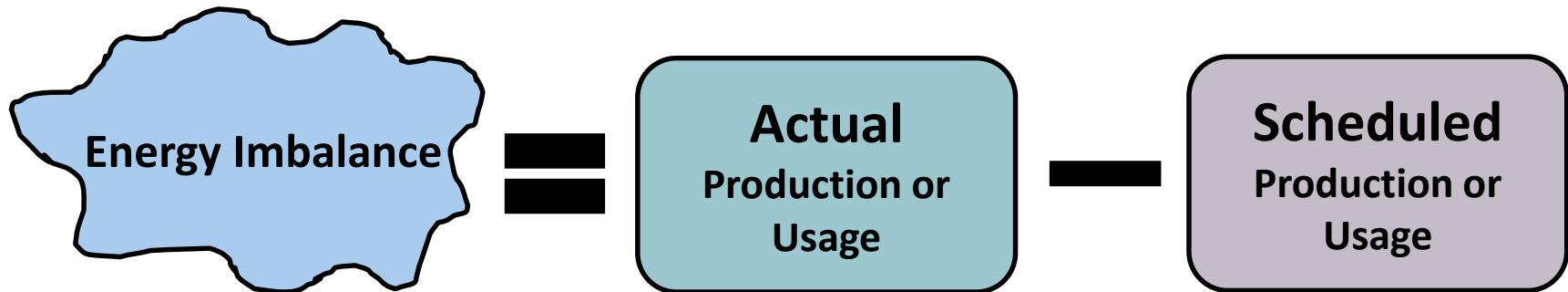
# Markets are here



# Markets in the West Workshop, April 9-10



# Energy Imbalance & Energy Imbalance Markets



## **Today: WAPA handles imbalance for its balancing authorities**

- We use either hydro or bilateral agreements to handle EI
- EI calculated and priced hourly
- Region settles and bills each customer

## **Possible EIS Market Future: Market Operator handles imbalance**

- Market Operator optimizes market resources to supply EI
- EI calculated and Locational Marginal priced every 5 minutes
- Market Operator does some or all settlement and billing

# Why is WAPA Interested in EIM?

**Ensure reliable delivery of our hydropower while adjusting to a changing energy mix**

- Respond to customer feedback requesting WAPA to lead organized market discussions
- Address WAPA balancing authority limitations
- Facilitate integration of variable resources
- Enable participants who want to optimize their resources

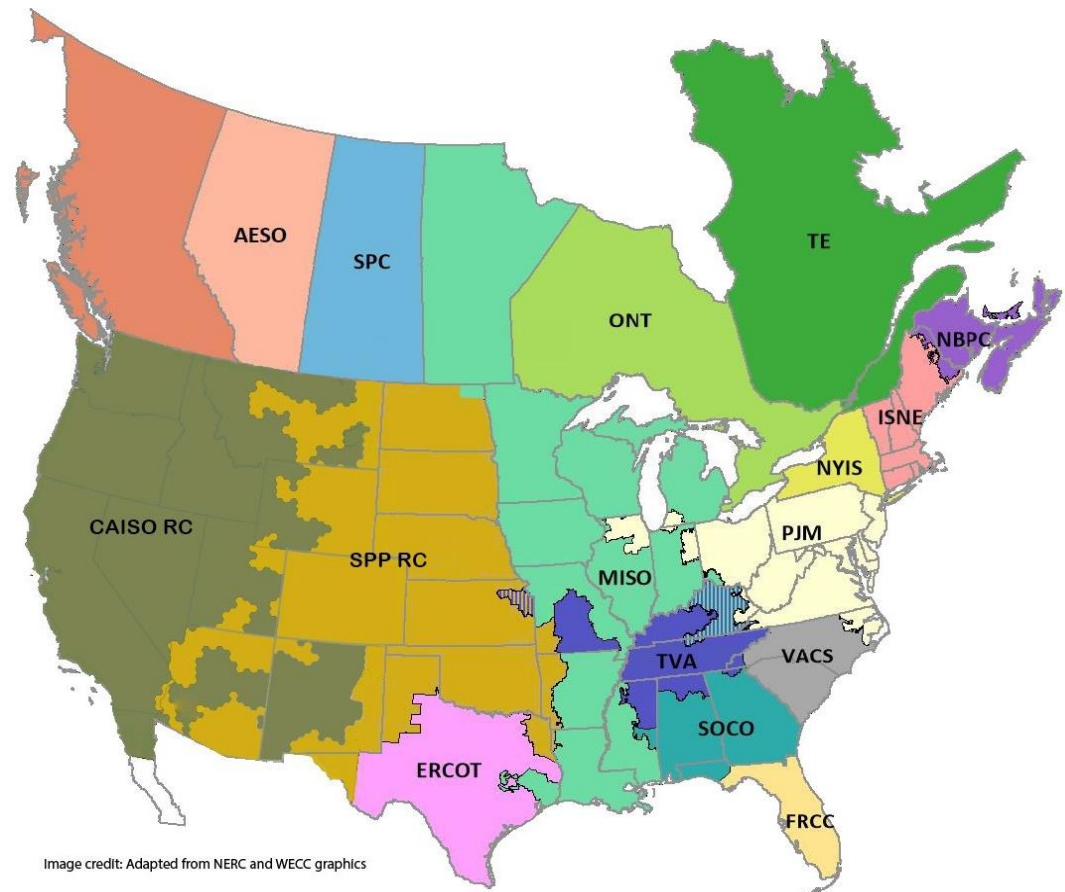


# Energy Imbalance Service

- WAPA reviewed CAISO's EIM in 2013
- WAPA received EIS proposal from SPP last week
  - Need to ensure reliable delivery of our hydropower in a changing energy landscape
  - We are NOT joining a full market; we are looking at participation in an energy imbalance service
  - Focus on longer-term solutions to meet our needs in a rapidly changing environment
  - We will engage with stakeholders and document our decisions
- WAPA's considering CAISO's EIM as well
  - Especially for Sierra Nevada

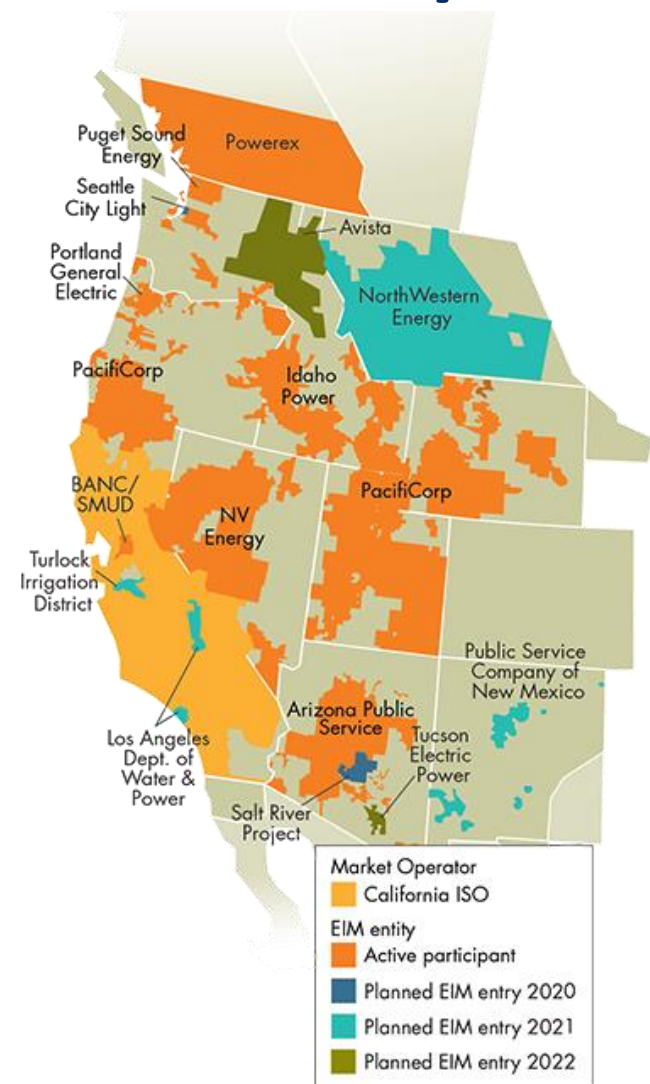
# SPP Reliability Coordinator

- PEAK RC terminating RC services
- Parallel RC operations October and November
- SPP RC takes over Dec. 3, 2019
- Enables SPP to readily add market



# California ISO EIM (Western EIM)

- BANC became active participant this year
- SN's sub-BA within BANC is evaluating options





# SPP Western Energy Imbalance Service (WEIS)

June 17, 2019

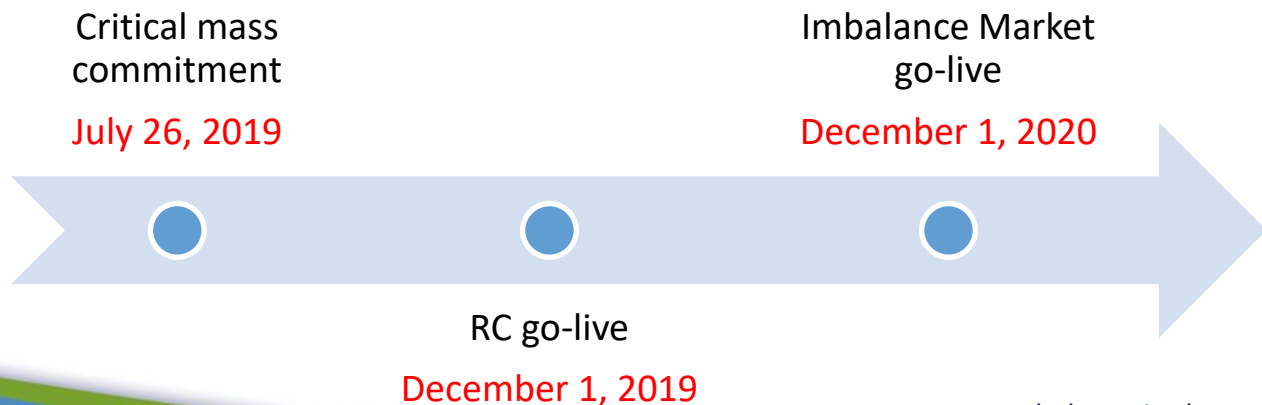
## **SPP proposes Western Energy Imbalance Service Market to bring cost savings and grid modernization to the west**

Southwest Power Pool (SPP) has announced to western utilities its proposal for the Western Energy Imbalance Service market (WEIS) it intends to launch in December 2020. The wholesale electricity market will balance generation and load regionally and in real time. SPP's previous energy imbalance market went live in 2007 and provided participants with \$103 million in benefits in its first year of operation.

**READ MORE** <https://spp.org/weis>

# SPP WEIS Proposal

- Two meetings in spring 2019 on high-level design of WEIS
- Webinar held June 25 on detailed proposal
- SPP proposed market “go-live” Dec. 1, 2020
  - One year after RC “go-live”
- Additional market participants may be added at approximate 6-month intervals after go-live



# SPP WEIS Implementation Cost

- \$9.5M spread over 8 years; integrated into admin fee to all participants
- 4-year commitment
- Load ratio share of entire startup cost part of commitment (including years 5-8)
- Those that commit are obligated for startup costs expended if efforts fails
- Annual cost (including startup costs) \$5M, charged via net energy to load ratio share
  - Assuming all WACM, PSCO and WAUW load, LAP admin fee estimated at ~\$150k/year



# Possible Impacts to BA EI service

- Potential changes to Schedule 4 and 9 of OATT or BA contracts
  - EI ancillary rate changes would involve a *Federal Register* notice process and customer meeting
- Depending on implementation, this could entail a cost change of BA administration

# Feedback desired

Send comments or concerns to:

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*Olympus Dam*